### AVARAGE AND PROBABILITY.

**57. Proposed by G. B. M. ZERR, A. M., Ph. D., Presfdent and Professor of Mathematics, Russell College, Lebanon, Va.**

A chord is drawd through two points taken at random in the surface of a circle. If a second chord be drawn through two other points taken at random in the surface, find the chance that the quadrilateral formed by joining the extremeties of the two chords will contain the center of the circle.

**58. Proposed by HENRY HEATON, M. Sc., Atlantic, Iowa.**

From a point on the surface of a circle two lines are drawn to the circumference. Required the average area that may be cut from the circle in this way if the lines are supposed to be drawn at equal angular intervals.

Query I. How does this differ from problem 32?

Query II. Is *sector* the proper word to use for the surface thus cut off?

Query III. It is absolutely correct to use the word *random* in average problems?

## NOTES.

### THE INTERNATIONAL MATHEMATICAL CONGRESS.

The meeting at Zurich, August 9th–11th, of the International Congress of Mathematicians was in every way a success. More than two hundred members took part. America sent seven representatives, including, however, three Cambridge graduates, now transplanted to Pennsylvania, Professors Harkness, Morley and Charlotte Scott. The greatest mathematician in the world, Sophus Lie, was not expected; and the greatest French mathematician, Poincaré, though down for a speech, did not come; but the actual program was particularly rich and interesting.

It is very noteworthy that the Congress was divided into five sections: (1) Arithmetic and Algebra; (2) Analysis, and Theory of Functions; (3) Geometry; (4) Mechanics and Mathematical Physics; (5) History and Bibliography.

The program of the first section contained the only title in English: "On Pasigraphy, its present state and the pasigraphic movement in Italy," by Ernst Schroeder, of Karlsruhe, author of "Algebra der Logik."

The second section contained a title from Z. de Galdeano, whose heroic efforts gave Spain a Journal of Mathematics, now unfortunately dead in the decadence of that beautiful, priest-ridden land.

The program of the third section, the only one consecrated wholly to a single title, Geometry, contained two titles on the non-Euclidean geometry.

*Burali:* Les postulats pour la geométrie d'Euclide et de Lobatschewsky.

*Andrade:* La statique non euclidienne et diverses formes mécaniques du postulatum d'Euclide.

In Section IV. Stodola treated an important subject, "Die Beziehungen der Technik zur Mathematik."